






**Actuator, and clock and annunciator mounted with same****Publication number:** CN1241322**Publication date:** 2000-01-12**Inventor:** OSAMU MIYAZAWA (JP)**Applicant:** SEIKO EPSON CORP (JP)**Classification:****- international:** **G04G13/02; H01L41/09; H02N2/10; G04G13/00; H01L41/09; H02N2/10; (IPC1-7): H02N2/00; G04C3/12****- European:** G04G13/02; H01L41/09B; H01L41/09C**Application number:** CN19988001470 19980803**Priority number(s):** JP19970209470 19970804; JP19980082254 19980327; WO1998JP03464 19980803**Also published as:** E P0963033 (A1)  
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To provide an actuator which can achieve a reduction in size and weight of a device in which the actuator is mounted by amplifying and outputting displacement of a movable end of a vibration plate as vibration in an in-plane direction, and to provide a timepiece and a notification device using the same, in an actuator (10), when a voltage is applied to a piezoelectric element (21) formed on a vibrating plate (12), the vibrating plate (12) generates bending vibrations in an out-of-plane direction, and one end portion (125) repeats displacement in an in-plane direction as a movable end. The displacement is transmitted to a lever (32) whose base end side (321) is connected to the end portion (125) of the vibrating plate (12) and an elastically deformable constricted portion (31), and a free end (322) of the lever (32) vibrates in the in-plane direction to drive a follower member (500).

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